

Title (en)

APPARATUSES AND METHODS FOR FORMING AN INSTRUMENTED CUTTING FOR AN EARTH-BORING DRILLING TOOL

Title (de)

VORRICHTUNGEN UND VERFAHREN ZUR HERSTELLUNG EINES INSTRUMENTIERTEN SCHNITTES FÜR EIN ERDBOHRWERKZEUG

Title (fr)

APPAREILS ET PROCÉDÉS POUR FORMER UNE COUPE INSTRUMENTÉE POUR UN OUTIL DE FORAGE DU SOL

Publication

**EP 3818244 A1 20210512 (EN)**

Application

**EP 19831085 A 20190703**

Priority

- US 201816026922 A 20180703
- US 2019040577 W 20190703

Abstract (en)

[origin: WO2020010241A1] An instrumented cutting element, an earth-boring drilling tool, and related methods are disclosed. The instrumented cutting element may include a substrate base, a diamond table disposed on the substrate base, a sensor disposed within the diamond table, a lead wire coupled to the sensor and disposed within a side trench formed within the substrate base, and a filler material disposed within the side trench. The earth-boring drilling tool may include securing the instrumented cutting element to a blade of a bit body. A related method may include forming the instrumented cutting element and earth-boring drilling tool.

IPC 8 full level

**E21B 10/567** (2006.01); **E21B 12/02** (2006.01); **E21B 49/00** (2006.01)

CPC (source: EP US)

**B22F 7/06** (2013.01 - EP); **C22C 26/00** (2013.01 - EP); **E21B 10/567** (2013.01 - EP US); **E21B 12/02** (2013.01 - EP US); **E21B 47/00** (2013.01 - EP US); **E21B 47/013** (2020.05 - EP); **E21B 49/003** (2013.01 - US); **B22F 3/14** (2013.01 - EP); **B22F 7/08** (2013.01 - EP); **E21B 10/5735** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2020010241 A1 20200109**; BR 112020026895 A2 20210330; BR 112020026895 B1 20240430; CN 112424439 A 20210226; CN 112424439 B 20221028; EP 3818244 A1 20210512; EP 3818244 A4 20220209; SA 520420908 B1 20220716; US 11180989 B2 20211123; US 2020011171 A1 20200109

DOCDB simple family (application)

**US 2019040577 W 20190703**; BR 112020026895 A 20190703; CN 201980046754 A 20190703; EP 19831085 A 20190703; SA 520420908 A 20201227; US 201816026922 A 20180703